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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,472	09/30/2003	Remo Corgi	CORGHI16	1534

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BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER

HANLEY, JOHN C

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 03/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,472

Applicant(s)

CORGHI, REMO

Examiner

John C Hanley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the roller drive means of claim 8 and the gear drive means of claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show rigid connection of the motor to the frame as described in the specification. If this structure is that shown by the parallel horizontal lines between the numbers 3 and 8 in Figs. 2 and 3, it should be numbered and described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 81.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: On page 5, line 14, number 81 is not found in the drawings. The word "tendential" on page 6, lines 1 and 3, is not understood or defined. It is not in the dictionary.

Appropriate correction is required.

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5. Claims 1, 2, 3, and 4-9 are objected to because of the following informalities:

6. Regarding claim 1, "that end emerging from the bed has no antecedent basis; "force transducer means applied between the bed and the shaft" should be "bed and frame; "drive means are rigid with the ... frame" is inaccurate, since the drive belt is flexible.

7. Regarding claim 2, "belt type" is vague and indefinite.

8. Regarding claims 3, and 4-6, "the force transducer means are" implies a plurality of transducer means, which is not necessarily consistent with the antecedent in claim 1, which can be singular. Also in claim 6 "shaft and bed" should be "frame and bed". Note, however, that correcting this would render the claim the same scope as claim 7.

9. Regarding claim 8, "roller type" is vague and indefinite, and the axes and the moving assembly has3 no antecedent basis.

10. Regarding claim 9, "gearwheel type" is vague and indefinite, and there is no antecedent basis for the axes, drive pinion, and the moving assembly.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly

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connected, to make and/or use the invention. Transducer means "applied at the minimum distance apart compatible with their overall size" is not adequately defined in the specification. There is no relationship between size and distance expressed. Nor can it be inferred what this relationship is. A minimum distance would be actually touching, which is not depicted in the drawings, and this has no relationship or bearing on the size of transducers.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Goebel (US-3922922).

15. Regarding claim 1, Goebel shows a balancing machine having a frame 4 suspension mounted on a bed 9 via elastic supports 13, a shaft 1 rotatably supported at two points 2 and 3, the shaft end having means for mounting a wheel 5, drive means 7/8 for rotating the shaft, and force transducer means 10 applied between the bed 9 and shaft/frame 1/4. The drive means are rigid with the frame via bracket 6 attached to the frame. Between the bed 9 and frame 4 are two coplanar leaf springs 13 symmetrical about the shaft axis and positioned in a plane perpendicular to the plane containing the axes of the drive means 7, the shaft 1, and the transducer means 10.

16. Regarding claim 2, the drive means of Goebel is of the "belt type", and the two coplanar leaf springs are in the plane perpendicular to the drive belt 8 (see especially the end view of Figure 2).

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Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goebel as applied to claim 1 above, and further in view of Gross et al (US-5576490). Goebel shows multiple transducers applied on the same side of the shaft, and show them applied between the bed 9 and the shaft or frame, but they do not all lie in the same plane as the shaft. Gross et al show such a plural transducer arrangement, where the transducers 30 are applied between a bed 32 and the shaft frame 28 of their balancing machine, and both transducers are in the same plane as the axes of the shaft and the drive means. It would have been obvious to one skilled in the art at the time of applicant's invention to modify the positions of the plural transducers of Goebel to lie in the same plane as the axes of the shaft and drive means, as taught in Gross et al, since the transducers of Gross et al are an obvious alternative to measure the same movements of the shaft that Goebel intends to characterize. Regarding claim 5, the spacing between the transducers is obviously adjustable, depending on the length of the shaft frame, etc. One skilled in the art would be able to characterize the imbalance of the shaft via any distance between the transducers.

19. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goebel as applied to claim 1 above, and further in view of Rogers et al (US-

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5201224). Goebel lacks a showing of plural transducers on opposite sides of the shaft. Rogers et al, figure 1, shows transducers 19 on opposite sides of the shaft of a balancing machine. It would have been obvious to one skilled in the art at the time of applicant's invention to modify Goebel to have transducers on opposite sides of the shaft, as taught in Rogers, since Rogers' alternative arrangement measures and characterizes the same shaft movement due to imbalance as Goebel does.

20. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goebel as applied to claim 1 above, and further in view of Goebel (US-5717138). Goebel ('922), applied to claim 1, lacks a roller drive. Goebel ('138) shows a roller type drive for driving the shaft of a balancing machine. It would have been obvious to one skilled in the art at the time of applicant's invention to substitute the equivalent roller drive of Goebel ('138) for the belt drive of Goebel ('922), since both drive a shaft of a balancing machine.

21. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goebel as applied to claim 1 above, and further in view of Rothamel (US-5060513). Goebel lacks a gear drive for the shaft. Rothamel, figures 4 and 5 shows a gearwheel type drive for driving the shaft of a balancing machine. It would have been obvious to one skilled in the art at the time of applicant's invention to substitute the equivalent gearwheel type drive of Rothamel for the belt drive of Goebel ('922), since both drive a shaft of a balancing machine. Note that Rothamel also shows essentially everything shown in claim 1 as the reference of Goebel applied to claim 1, except for the plural shaft supports. Rothamel also shows leaf springs coplanar throughout their length.

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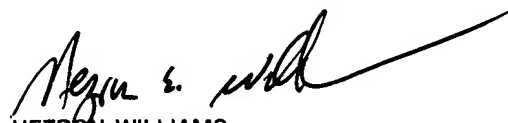
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Muller shows plural transducers 21 applied to the same side of the shaft 1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C Hanley whose telephone number is 571-272-2195. The examiner can normally be reached on M-F 9AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCH



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800